

Appl. No. 10/006,059
Substitute Appeal Brief dated 08/25/2007
Reply to Office Action of 07/26/2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of:
Banerjee et al.
Serial No: 10/006,059
Filed: 12/06/2001
Title: APPARATUS AND METHOD
OF USING XML DOCUMENTS TO
PERFORM NETWORK PROTOCOL
SIMULATION

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: Before the Examiner:
: Nghi V. Tran
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: Group Art Unit: 2151
:
: Confirmation No.: 8983
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:

APPELLANTS' BRIEF UNDER 37 C.F.R. 41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is in response to the Notification of Non-Compliant Appeal Brief of July 26, 2007, which Appeal Brief was filed on October 26, 2005 pursuant to a Notice of Appeal filed on August 29, 2005 in accordance with 37 C.F.R. 41.31.

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BRIEF FOR APPLICANTS - APPELLANTS

(i)

Real Party in Interest

The real party in interest is International Business Machines Corporation (IBM), the assignee.

(ii)

Related Appeals and Interferences

There are no other appeals or interferences known to appellants, appellants' representative or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(iii)

Status of Claims

Claims 1 – 20 are finally rejected. Claims 1 – 20 are being appealed.

(iv)

Status of Amendment

An "Amendment After Final" was not filed.

(v)

Summary of Claimed Subject Matter

The invention, as claimed in Claim 1, provides a method of performing network protocol simulation using an eXtensible Markup Language (XML) document (page 11, lines 20 – 22, page 27, lines 19 and 20), the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges (page 27, lines 20 – 26). The method comprises the steps of: generating an XML document using network protocol data packets

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(page 18, line 30 to page 26, line 14); and changing a part of the XML document to perform the network protocol simulation (page 27, line 27 to page 28, line 4).

The invention, as claimed in Claim 6, provides a computer program product on a computer readable medium for performing network protocol simulation using an eXtensible Markup Language (XML) document (page 11, lines 20 – 22, page 27, lines 19 and 20), the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges (page 27, lines 20 – 26). The computer program product comprises: code means for generating an XML document using network protocol data packets (page 18, line 30 to page 26, line 14); and code means for changing a part of the XML document to perform the network protocol simulation (page 27, line 27 to page 28, line 4). The code means of the claim are the steps enumerated on page 20, line 7 to page 21, line 25, page 23, line 27 to page 24, line 6 as well as in Figs. 9 and 13.

The invention, as claimed in Claim 11, provides an apparatus for performing network protocol simulation using an eXtensible Markup Language (XML) document (page 11, lines 20 – 22, page 27, lines 19 and 20), the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges (page 27, lines 20 – 26). The apparatus comprises: means for generating an XML document using network protocol data packets (page 18, line 30 to page 26, line 14); and means for changing a part of the XML document to perform the network protocol simulation (page 27, line 27 to page 28, line 4). The means of the claim are the steps enumerated on page 20, line 7 to page 21, line 25, page 23, line 27 to page 24, line 6 as well as in Figs. 9 and 13 processed by processor 202, processor 204 of Fig. 2 or processor 302 of Fig. 3.

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The invention, as claimed in Claim 16, provides a computer system for performing network protocol simulation using an eXtensible Markup Language (XML) document (page 11, lines 20 – 22, page 27, lines 19 and 20), the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges (page 27, lines 20 – 26). The computer system comprises: at least one memory device (local memory 209, hard disk 232 of Fig. 3, main memory 304, disk 326, tape 328, CD-ROM 330 or memory 324 of Fig. 3) for storing code data; and at least one processor (processor 202, processor 204 of Fig. 2 or processor 302 of Fig. 3) for processing the code data to generate an XML document using network protocol data packets (page 18, line 30 to page 26, line 14), and to change a part of the XML document to perform the network protocol simulation (page 27, line 27 to page 28, line 4).

(vi)

Grounds of Rejection to be Reviewed on Appeal

Whether Claims 1 – 3, 6 – 8, 11 – 13 and 16 - 18 were properly rejected under 35 U.S.C. §102(e) as being anticipated by Lienhard et al.

Whether Claims 4, 5, 9, 10, 14, 15, 19 and 20 were properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lienhard et al. in view of Slaughter et al.

(vii)

Arguments

Whether Claims 1 – 20 were properly rejected under 35 U.S.C. §102(e) as being anticipated by Lienhard et al.

Claims 1, 6, 11 and 16

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Lienhard et al. purport to teach an information technology system for the definition, optimization and control of processes. According to Lienhard et al., the disclosure describes an information technology system to control processes consisting of sequences of discrete events, whereby a process model corresponds to a real process or reflects the real process. The process model and the real process are coupled to each other via an interface. Thus, direct data exchange between the process model and the real process occurs through the interface preferably using XML documents. Although, the process model is coupled to the real process, it can be independent of the real process. This allows the system to perform simulation of process modifications and/or optimization of the process without interruption of the real process. In such a case, process modification in the process model can be checked without interrupting the real process and if the modification was found to be successful, it can be integrated in whole or in part in the real process by way of the interface.

However, Lienhard et al. do not teach, show or suggest the steps of *generating an XML document using network protocol data packets*; and *changing a part of the XML document to perform network protocol simulation* as claimed. Rather Lienhard et al. teach a method by which a real process and a simulator use XML documents to exchange information (see col. 2, lines 11 – 23 and col. 4, lines 41 – 64). Therefore, the XML documents are not generated from network protocol data packets.

It is a well settled that that in considering a Section 102 rejection, all the elements of the claimed invention must be disclosed in a single item of prior art in the form literally defined in the claim. *Jamesbury Corp. v. Litton Indus. Products*, 756 F.2d 1556, 225 USPQ 253 (Fed. Cir. 1985); *Atlas Powder Co. v. Dupont*, 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); *American Hospital Supply v. Travenol Labs.*, 745 F.2d 1, 223 USPQ 577 (Fed. Cir. 984).

Since, as mentioned above, Lienhard et al. do not teach the claimed invention, Claims 1, 6, 11 and 16 are not anticipated by Lienhard et al.

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Claims 2, 7, 12 and 17

Claims 2, 7, 12 and 17 include the limitations "wherein the step of changing a part of the XML document includes the step of changing design characteristics of the network protocol to effect the XML document generation process."

The Examiner asserted that Lienhard et al. teach this claimed element in col. 5, lines 9 – 21. Appellants respectfully disagree.

In col. 5, lines 9 – 21, Lienhard et al. disclose:

Visualisation of both a process to be simulated and a real process takes place via graphical representation of the process model which can be animated and thus easily made comprehensible by means of simulator 1. The process model in simulator 1 can for example also be exported as a Java applet and can thus be published in dynamic form on the intranet/internet 4 via a web server 5. In this way, the model can be downloaded at practically any desired location to an internet browser and can be animated or simulated therein. If, for example, in the model applet on the web server 5, the state of the real process is continuously updated, then this information is also made available via the intranet/internet 4 at any location to any desired number of people.

In this paragraph, Lienhard et al. teach that the process model (or simulation) can be made available on the Internet as a Java applet. As a Java applet it can be animated and since it is on the Internet, anyone can have access to it (the simulation). Liehard et al. also state that if the state of the real process is continuously updated, this information can also be available over the Internet.

However, Lienhard et al. do not teach anywhere in that passage the step of ***changing design characteristics of a network protocol to effect XML document generation process*** as claimed by the Examiner.

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Therefore, Appellants submit that these claims are not anticipated by Lienhard et al.

Whether Claims 4, 5, 9, 10, 14, 15, 19 and 20 were properly rejected under 35 U.S.C. §103(a) as being unpatentable over Lienhard et al. in view of Slaughter et al.

Claims 4, 9, 14 and 19

Claims 4, 9, 14 and 19 include the limitations "wherein the XML document is validated using a schema."

The Examiner admitted that Lienhard et al. do not teach the limitations of the claims. However, the Examiner stated that Slaughter et al. disclose XML document being validated using a schema. Therefore, the Examiner continued, it would have been obvious to combine the teachings of Lienhard et al. with those of Slaughter et al. to arrive at the claimed invention. Appellants respectfully disagree.

The teachings of Slaughter et al. are directed toward a mechanism and apparatus for web-based searching of URI-addressable repositories in a distributed computing environment. By contrast, the teachings of Lienhard et al. are directed toward a method by which a real process and a simulator use XML documents to exchange information data. Since the teachings of the two references are directed toward vastly dissimilar topics, then they cannot be combined together absent a teaching or a suggestion to do so.

In *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1783–84 (Fed. Cir. 1992), the Court ruled that "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so." (quoting *ACS Hosp. Systems, Inc. v. Montefiore Hosp.*, 732

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F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). . . . The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In this case, there is no teaching or suggestion in the prior art for the combination. (Note that Lienhard et al. disclose in various sections of their disclosure that XML documents are used to exchange information data without ever teaching or suggesting that the XML documents are validated using a schema.) Therefore, Appellants submit that the Examiner has impermissibly combined the teachings of Lienhard et al. with those of Slaughter in a quest to render the claimed invention obvious.

Hence, Appellants submit that Claims 4, 9, 14 and 19 are patentable over Lienhard et al. in view of Slaughter et al.

Based on the foregoing, Appellants respectfully request reversal of the rejection and passage to issue of the claims in the Application.

Respectfully Submitted

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(viii)

Claims Appendix

1. (Previously presented) A method of performing network protocol simulation using an eXtensible Markup Language (XML) document, the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges, the method comprising the steps of:
 - generating an XML document using network protocol data packets; and
 - changing a part of the XML document to perform the network protocol simulation.
2. (Original) The method of Claim 1 wherein the step of changing a part of the XML document includes the step of changing design characteristics of the network protocol to effect the XML document generation process.
3. (Original) The method of Claim 2 wherein the resultant XML document is used as a simulation aid.
4. (Original) The method of Claim 3 wherein the XML document is validated using a schema.
5. (Original) The method of Claim 4 wherein new data packets are used to change the XML document.

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6. (Previously presented) A computer program product on a computer readable medium for performing network protocol simulation using an eXtensible Markup Language (XML) document, the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges, the computer program product comprising:
 - code means for generating an XML document using network protocol data packets; and
 - code means for changing a part of the XML document to perform the network protocol simulation.
7. (Original) The computer program product of Claim 6 wherein the code means for changing a part of the XML document includes code means for changing design characteristics of the network protocol to effect the XML document generation process.
8. (Original) The computer program product of Claim 7 wherein the resultant XML document is used as a simulation aid.
9. (Original) The computer program product of Claim 8 wherein the XML document is validated using a schema.
10. (Original) The computer program product of Claim 9 wherein new data packets are used to change the XML document.

11. (Previously presented) An apparatus for performing network protocol simulation using an eXtensible Markup Language (XML) document, the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges, the apparatus comprising:

means for generating an XML document using network protocol data packets; and

means for changing a part of the XML document to perform the network protocol simulation.

12. (Original) The apparatus of Claim 11 wherein the means for changing a part of the XML document includes means for changing design characteristics of the network protocol to effect the XML document generation process.
13. (Original) The apparatus of Claim 12 wherein the resultant XML document is used as a simulation aid.
14. (Original) The apparatus of Claim 13 wherein the XML document is validated using a schema.
15. (Original) The apparatus of Claim 14 wherein new data packets are used to change the XML document.
16. (Previously presented) A computer system for performing network protocol simulation using an eXtensible Markup Language (XML) document, the

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XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges, the computer system comprising:

at least one memory device for storing code data; and

at least one processor for processing the code data to generate an XML document using network protocol data packets, and to change a part of the XML document to perform the network protocol simulation.

17. (Original) The computer system of Claim 16 wherein the processor further processes the code data to change design characteristics of the network protocol to effect the XML document generation process.
18. (Original) The computer system of Claim 17 wherein the resultant XML document is used as a simulation aid.
19. (Original) The computer system of Claim 18 wherein the XML document is validated using a schema.
20. (Original) The computer system of Claim 19 wherein new data packets are used to change the XML document.

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Evidence Appendix

None.

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Related Proceedings Appendix

None.

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